

Louisiana Deer Report

2014-2015

LDWF Wildlife Division

August 2, 2015

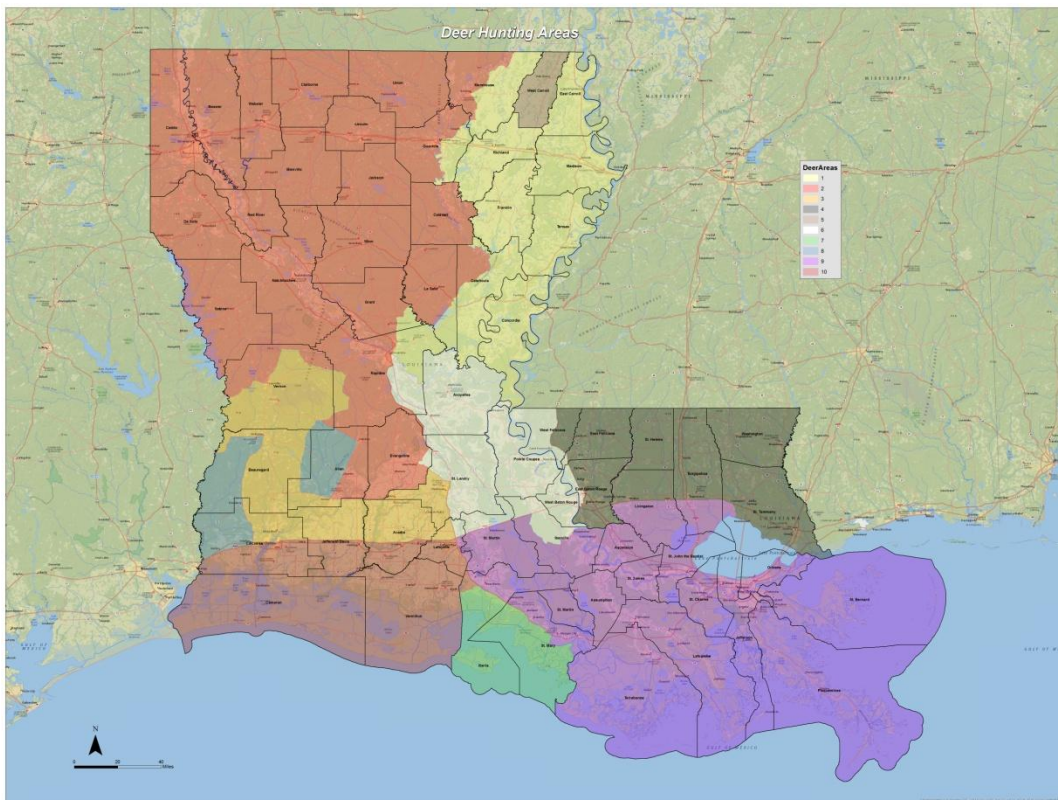
Introduction

The Louisiana deer program is administered by the Office of Wildlife and implemented through 6 field offices where wildlife biologists and technicians perform year round research and management activities on public and private lands. The state is presently divided into 10 deer management areas (DMAs, Figure 1).

Seasons are set according to general breeding periods, habitat productivity, and landscape features. The statewide limit is 2 antlered, 1 either sex, and 3 antlerless deer per year. Antlerless deer may be taken during the entire season in DMAs 1, 2, 3, 6, and 8. IN DMAs 4, 5, 7, 9, and 10, antlerless hunting will only be allowed on designated days. All deer must be tagged prior to being moved from the harvest site.

All deer must be reported through the phone or internet system, a wildlife management area (WMA) worker, or the Deer Management Assistance Program (DMAP). This harvest information along with other data is used to develop deer seasons and regulations.

Figure 1. Louisiana Deer Management Areas, 2014-15.



Harvest

The deer harvest declined during the 2014-15 season. Many hunters reported a greater mast crop than expected. Good mast crops can reduce deer use of feeders and food plots.

Once again, fawn recruitment is expected to be good this year where adequate habitat exists. Abundant and steady rainfall provides the soil moisture necessary for plant growth and good growing conditions for natural forages. The spring and summer months are critical to females due to the high nutritional demands of fetal development and lactation. Timely rainfall and adequate habitat provide the new growth plant material needed to meet the high protein and energy requirements to raise fawns. We have had abundant rainfall over much of the state during this growing season.

High mosquito populations can reduce fawn survival. Hunters should also remember that the 2009, 2011 and 2012 droughts could still be impacting deer populations through reduced cohorts and the lag effects of maternal stress.

Anecdotal reports of hemorrhagic diseases (HD) were normal during the 2014/15. We are just entering the period where HD mortality is most prevalent. Several reports of HD have already been received.

Hogs continue to be a primary concern. Research shows that deer and hogs do not mix and that deer can be displaced by hogs. Research has shown that deer detection rates can be up to 49% less where hogs occur. Hog populations affect deer numbers through direct competition for food resources and fawn predation. Hogs carry infectious diseases such as Leptospirosis, brucellosis, and pseudo-rabies. Wildlife veterinarians are studying the impacts of these diseases on wildlife species. The mail survey hog harvest estimate was 299,500 (+63%) over twice the current deer harvest estimate and higher than any recorded deer harvest estimate.

The number of deer tags issued continues to trend up (Table 1.)

Table 1. Number of sets of deer and turkey tags issued in Louisiana, 2008-2014.			
Year	Tags		
2008-09	227,001		
2009-10	231,935		
2010-11	224,725		
2011-12	253,669		
2012-13	259,824		
2013-14	270,730		
2014-15	273,541		

Areas of concerns for the statewide deer populations continue to be:

Feral hog transport

Feral hog disease issues and population spread

Landscape scale factors:

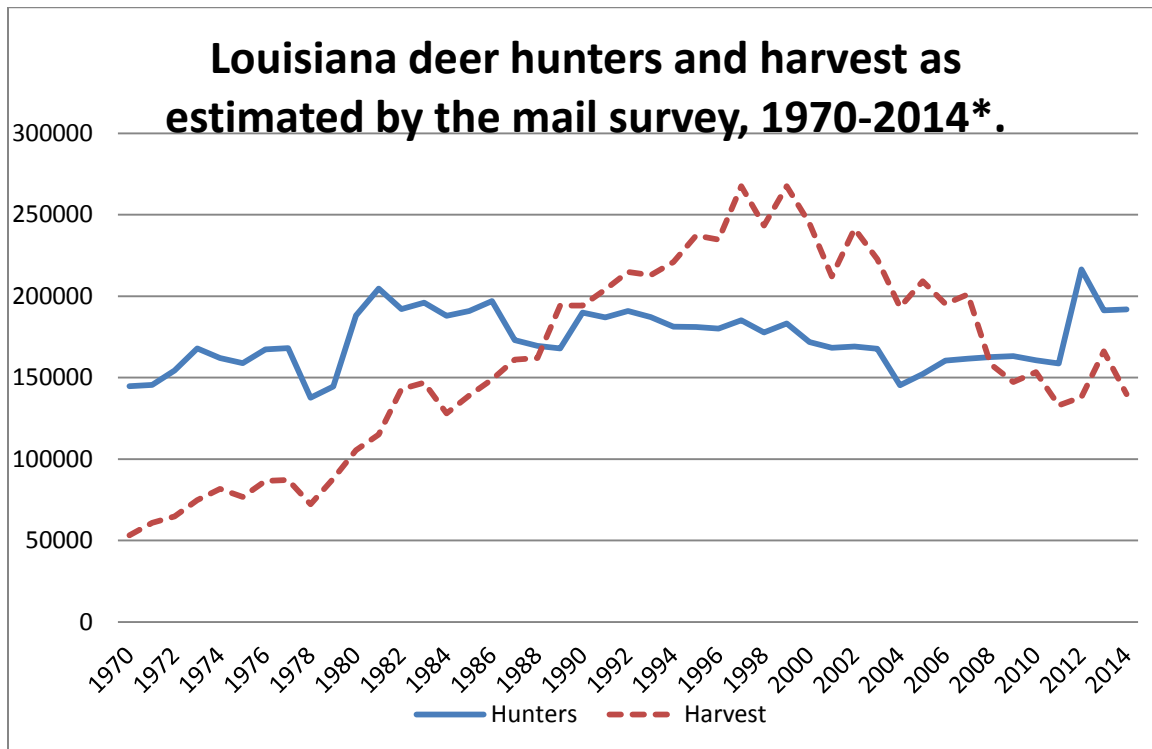
Residential, commercial, and energy development

Intensive forest management practices

Mail survey

A 6% sample of licensed hunters receives a harvest survey by mail. Participants return the survey and statistics are compiled. The mail survey index for hunters and harvest for the 2014/15 season is 192,600 and 139,900 respectively. (Figure 2).

Figure 2. Mail survey estimate of Louisiana deer hunters and deer harvested, 1970-2014.



***= 2012 mail survey forward estimates for hunters and harvest include senior hunters (hunters >60).**

The hunter number index has increased the last couple years. The harvest sex ratio according to the 2014-15 mail survey was 59% male, 41% female. Deer hunters spent 3.8 million days afield during the 2014-15 season, similar to the 2013/14 estimate.

The harvest allocation by weapon type (Table 2.) reveals that modern weapons are still by far the most popular method for harvesting deer in Louisiana. The bow harvest dropped 1%, but crossbow was similar.

Table 1. Louisiana deer harvest distributed by weapon type, based on the mail survey, 2014-15.			
Weapon	Harvest	%	
modern gun	115,500	83%	
primitive	15,800	11%	
bow	5,300	4%	
crossbow	3,300	2%	
Totals	139,900		

Internet/phone reporting results/total reported harvests

This year was the 7th year of mandatory tagging and reporting of deer through the system. The reporting system tallied 48,298 deer, a decrease of 5.8% from last year, and still well below the base line year. The total reported harvest including WMA managed hunts and DMAP lands was 65,081 (Table 3.) down 5.6% from the last year. It is important for hunters to report their deer, so that complete data are available for future deer management decisions. There were 273,541 sets of deer and turkey tags issued in 2014-15.

Table 3. Summary of harvest reporting by category, 2008-2014.					
Year	Private	Public	WMA managed	DMAP	Total
2008/09	87,237	8,481	2,877	17,976	116,571
2009/10	78,444	9,035	2,335	17,641	107,455
2010/11	74,346	9,742	3,004	17,740	104,832
2011/12	53,860	5,596	2,526	14,396	76,378
2012/13	46,814*	na	2,425	14,039	63,278
2013/14	51,319*	na	2,713	14,956	68,988
2014/15	41,563	6,735	2,655	14,128	65,081
*=combined public and private					

The top 20 total harvest parishes are presented in Table 4. The top 20 harvest parishes by forested acres per deer are presented in Table 5.

Table 4. Top 20 harvest parishes in Louisiana derived from the reporting system through March 16, 2015.			
Parish	Harvest	Parish	Harvest
Union	3016	Natchitoches	1812
Bienville	2725	Webster	1748
Vernon	2634	Jackson	1689
Tensas	2404	St. Landry	1613
Claiborne	2379	Rapides	1528
Iberville	2098	W. Feliciana	1498
Bossier	1953	Sabine	1472
Madison	1924	Beauregard	1451
Winn	1913	E. Carroll	1389
Avoyelles	1910	Ouachita	1352

Table 5. Top 20 harvest parishes by forested acreage derived from the new reporting system through March 16, 2015.

Parish	Acres/deer	Parish	Acres/deer
E. Carroll	24	Franklin	119
Tensas	47	Iberville	123
Madison	55	Morehouse	139
W. Baton Rouge	84	Concordia	150
W. Carroll	101	Union	159
Avoyelles	103	Webster	164
St. Landry	104	Bienville	166
W. Feliciana	109	Claiborne	183
Richland	112	Ouachita	185
Point Coupee	117	Jackson	186

Mail survey vs. reporting system harvest-

The mail survey deer harvest index has been higher than the reporting system total harvest (Table 6). The mail survey index is best used to monitor trends over time and is not as an absolute count, as the reporting system is intended to be when all hunters report their deer.

Table 5. Reporting system total vs. the mail survey harvest index, 2007-2014.

Year	Reporting system (all sources*)	%Diff.	Mail survey harvest index	%Diff.	Survey difference
2007/08	na		201,000		
2008/09	116,571	na	158,300	-21%	26%
2009/10	107,455	-8%	147,300	-7%	27%
2010/11	104,832	-2%	153,500	4%	32%
2011/12	76,378	-27%	133,000	-13%	43%
2012/13	63,278	-17%	138,031 **	4%	54%
2013/14	68,988	9%	166,200	20%	58%
2014/15	65,081	-6%	139,928	-16%	53%

*= DMAP, WMA managed hunts, public and private reporting system total

**= mail survey includes senior hunters for the first time

Wildlife Management Areas-

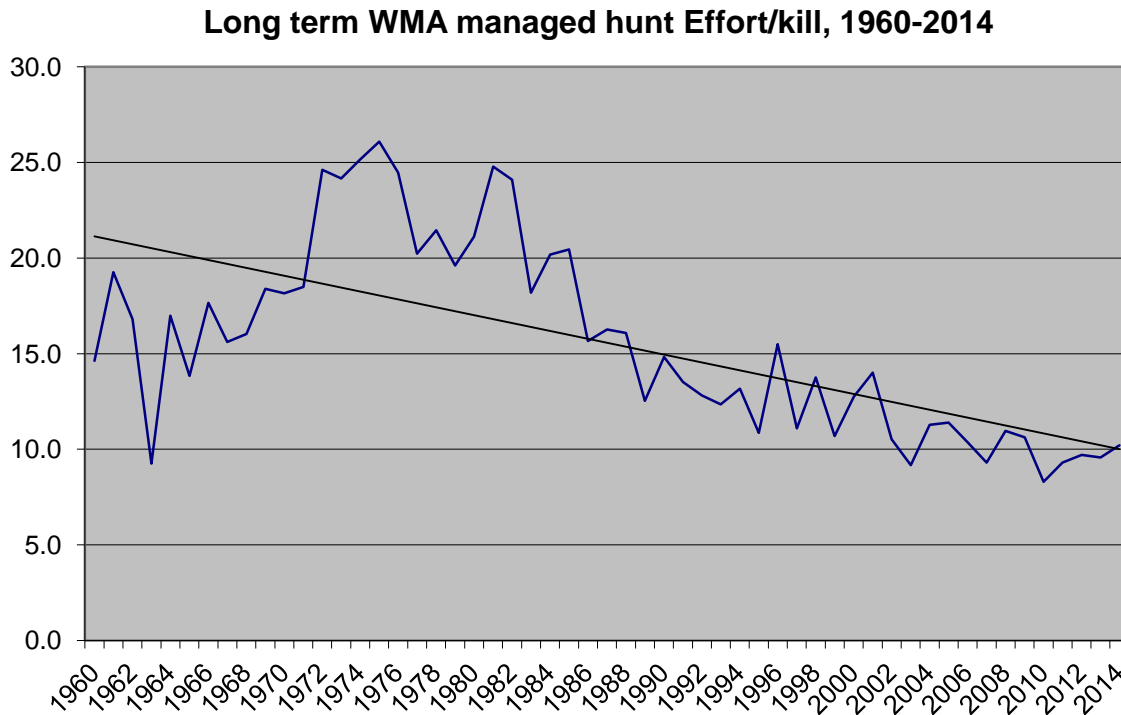
The Department manages over 1,000,000 acres that provide deer hunting opportunities. Modern firearm, primitive firearm, and archery either-sex hunts are the primary methods for keeping deer numbers in balance with the habitat. Youth and handicapped hunts are also available on many areas. Bucks only seasons provide extended hunting opportunity and generally are held near or during the rut. Harvest rates are variable on the WMAs according to deer physiographic region, habitat conditions, and hunter efforts. In some years WMA harvest rates equal or surpass intensively managed DMAP properties. On some WMAs, harvest rates are low due to habitat type, forest conditions, accessibility issues, or other management objectives. In general, WMA deer herds are managed in a way that helps ensure long term forest regeneration, diversity, sustainability, and a healthy deer herd. WMAs are not managed for maximum residual numbers, but rather maximum sustained harvest and recreational opportunity, which means deer herds at or below maximum biological carrying capacity.

The recorded harvest for either-sex managed hunts was 2,603 deer on the WMAs this year (Table 7). Managed either-sex hunts had an average hunter success rate of 10.2 efforts per deer (Figure 3). The sex ratio of the managed either-sex hunt harvest was 51% male, 49% female. The total recorded WMA harvest, including self clearing data (SCD) was 6,122 deer (+8.3%). The minimum known harvest rate was 1 deer per 181 acres across all WMAs and habitat types. The known sex ratio for the total recorded WMA harvest, including SCD, was 58% male, 42% female. The extended buck seasons account for the increased % of males in the total WMA harvest.

Table 7. 2014 WMA either sex hunt weekends¹.

WMA	Hunter efforts	Total harvest	Bucks	Does	Efforts per deer
Alexander State Forest (11-12 Oct)	198	17	12	5	11.6
Alexander State Forest (1-2 Nov)	148	15	10	5	9.9
Attakapas *	338	13	4	9	26.0
Bayou Macon (22-23 Nov)	132	16	5	11	8.3
Big Lake	652	122	62	60	5.3
Boeuf	1,459	307	178	129	4.8
Buckhorn	396	67	34	33	5.9
Camp Beauregard	728	84	42	42	8.7
Camp Beauregard (13-14 Dec)	316	18	10	8	17.6
Clear Creek	741	49	32	17	15.1
Clear Creek(Oct 25-26)	644	79	43	36	8.2
Dewey Wills (13-14 Dec)	1,252	210	130	80	6.0
Fort Polk	1,916	140	64	76	13.7
Fort Polk (Oct 25-26)	1,020	99	54	45	10.3
Grassy Lake **	591	113	59	54	5.2
Jackson Bienville (22-23 Nov)	479	98	45	53	4.9
Joyce*	76	3	1	2	25.3
Loggy Bayou	335	93	56	37	3.6
Maurepas Swamp *	590	71	25	46	8.3
Ouachita	244	54	34	20	4.5
Pearl River *	436	12	6	6	36.3
Peason Ridge	798	74	32	42	10.8
Peason Ridge (Oct 25-26)	114	5	3	2	22.8
Pomme de Terre**	547	25	10	14	21.9
Russell Sage	568	82	51	31	6.9
Sabine (18-19 Oct)	172	12	6	6	14.3
Sandy Hollow *	193	7	1	6	27.6
Sherburne **	1,530	137	48	73	11.2
Sherburne (6-8 Dec)	1,017	36	23	13	28.3
Sicily Island	215	21	8	7	10.2
Spring Bayou *	356	21	12	9	17.0
Thistlewaite	735	40	19	21	18.4
Thistlewaite (6-7 Dec)	540	19	15	4	28.4
Tunica Hills **	277	11	5	6	25.2
Union (Oct 25-26)	252	32	23	9	7.9
West Bay (Oct 25-26)	710	64	31	33	11.1
West Bay	566	28	9	19	20.2
Yancey**	5,264	309	122	148	17.0
	26,545	2,603	1,324	1,217	10.2
2013 Managed Either Sex Deer hunts	25,401	2,654	0.09		9.6
2012 Managed Either Sex Deer Hunts	23,449	2,416	0.01		9.7
2011 Managed Either Sex Deer Hunts	22,144	2,378	-0.21		9.3
2010 Managed Either Sex Deer Hunts	24,925	3,019	0.16		8.3
2009 Managed Either Sex Deer Hunts	27,643	2,603	0.01		10.6
1= Thanksgiving hunts unless otherwise noted					
*= self clearing					
**= combined mandatory check and self clearing					

Figure 3. WMA managed hunt effort per deer harvested, 1960-2014.



Hunter success and harvest vary, sometimes substantially, from year to year. The long term trend for WMA hunter success illustrates fewer efforts needed to harvest a deer. Additionally, many exceptional deer are harvested on the WMAs.

Disease

Disease monitoring is administered by the LDWF wildlife veterinarians and accomplished through necropsy efforts of sick or dead individuals when observed by Department personnel or when reported by the public. Herd health collections and managed hunts provide additional data and sampling opportunity. Biological samples are sent to the Southeastern Cooperative Wildlife Disease Study (SCWDS) at the University of Georgia, LSU's School of Veterinary Medicine, Texas Veterinary Medical Diagnostic Lab, Mississippi Veterinary Diagnostic Laboratory, or the National Veterinary Services Laboratory (NVSL) for diagnostic testing.

One hundred eight samples were submitted for serological analysis of exposure to various diseases as part of the LDWF herd health monitoring program. These samples are used to evaluate the health status of the Louisiana deer herd. These samples revealed 50% seroprevalence for Bluetongue Virus and 64% seroprevalence for Epizootic Hemorrhagic Disease Virus. These results may be residual effects of the severe hemorrhagic disease outbreak of 2012-13. LDWF had only 2 reported and confirmed cases of death due to hemorrhagic disease in wild white-tailed deer during the 2014-15 season.

Additionally, 121 samples were collected from “target” white-tailed deer for Chronic Wasting Disease analysis at SCWDS and NVSL. No samples tested positive. This brings the total number of wild white-tailed deer tested in Louisiana to 7,775 animals since the inception of the program in 2002.

A white-tailed deer in East Feliciana tested serologically positive for brucellosis. This is the first case of brucellosis ever documented in a wild deer in Louisiana. Although impossible to prove retrospectively, it is likely that the deer contracted *Brucella suis* from feral hogs in the area as seroprevalence for brucellosis in feral hogs in the area is very high, approaching 100% in adult animals. More testing will be pursued in the area in order to culture and confirm transmission if possible.

Also, the first documented case of *Trichomonas foetus* in wild deer in Louisiana was documented in a mature buck in Iberville Parish. Trichomoniasis is a venereal disease which causes early embryonic death and can lead to poor fawn recruitment. More testing will be performed to evaluate the prevalence of this disease, especially in areas noting poor fawn sightings.

White-tailed deer are being serologically evaluated for leptospirosis, a bacterial disease caused by multiple serovars of *Leptospira interrogans*. Leptospirosis may be contracted from feral hogs and other animals and can cause illness and abortions in deer. The infection rate based on serological titers this year was 9%.

Other interesting cases involved a doe with liver abscesses associated with severe liver fluke (*Fascioloides magna*) infestation and a young deer that died from severe parasitism, including a very heavy infestation of liver flukes (53 flukes in a 50 pound yearling).

Deer Pens

Commercial deer pens are regulated by the Louisiana Department of Agriculture and Forestry. There are 212 breeding facilities and 75 shooting preserves for a total of 287 LDAF licensed high fenced enclosures in the state (Figure 4). Importing cervids from other states is prohibited by LDWF due to disease and other long term population threats.

Figure 4. Louisiana Department of Agriculture and Forestry licensed deer pens by parish, 2014.

